

WHAT IS CLAIMED IS:

1. A stereoscopic image projection device comprising:

a plurality of image projecting means which, on the basis of image signals for one eye and another eye, project images for the one eye and the other eye which have parallax;

image display means for displaying the images projected from the plurality of image projecting means;

viewing means for dividing and enabling viewing, at the one eye and at the other eye respectively, of two-dimensional images for the one eye and the other eye which are displayed on the image display means; and

correction processing means for carrying out correction processing on at least one of image signals for the one eye and the other eye, on the basis of an amount of correction of image distortion determined on the basis of the image displayed on the image display means.

2. A stereoscopic image projection device according to claim 1, further comprising:

pick-up means for correction for picking-up an image projected on the image display means, for correction; and

correction computing means for determining, by computation, an amount of correction of image distortion from picked-up image data,

wherein the correction processing means carries out correction processing on image signals for the one eye and the other eye or on an image signal for one of the one eye and the

other eye, on the basis of the amount of correction determined by the correction computing means.

3. A stereoscopic image projection device according to claim 2, further comprising:

a plurality of first polarizing means through which passes only light of a given polarization direction for each eye from image lights for the one eye and the other eye which are projected from the plurality of image projecting means,

wherein, by using polarized light, the viewing means divides and enables viewing, at the one eye and at the other eye respectively, two-dimensional images for the one eye and the other eye which are displayed on the image display means.

4. A stereoscopic image projection device according to claim 3, wherein the pick-up means for correction includes:

pick-up means having functions of carrying out pick-up of an image for correction and temporarily accumulating image data;

a second polarizing means through which only light of a given polarization direction passes;

rotating means for automatically rotating the second polarizing means a predetermined angle;

rotation control means for controlling of the rotating means; and

pick-up times counting means for sensing completion of pick-up of the image for correction, counting a number of times pick-up is carried out, and stopping pick-up by the pick-up means when the number of times pick-up is carried out has reached a

given number of times.

5. A stereoscopic image projection device according to claim 2, further comprising:

a plurality of first shutter means for repeatedly carrying out, at high speed, operations of allowing passage of and blocking passage of image lights for the one eye and the other eye which are projected from the plurality of image projecting means;

shutter controlling means for controlling operations of the plurality of first shutter means and the pick-up means for correction; and

correction start signal generating means for generating a correction start signal, and for making the shutter control means and the pick-up means for correction start operations for correction.

6. A stereoscopic image projection device according to claim 5, wherein the image viewing means has a plurality of second shutter means for the one eye and the other eye which repeatedly open and close at high speed synchronously with the plurality of first shutter means for the one eye and the other eye.

7. A stereoscopic image projection device according to claim 5, wherein the pick-up means for correction includes:

pick-up means having functions of carrying out pick-up of an image for correction and temporarily accumulating image data;

pick-up control means for controlling the pick-up means;
and

pick-up times counting means for sensing completion of

pick-up of the image for correction, counting a number of times pick-up is carried out, and stopping pick-up by the pick-up means when the number of times pick-up is carried out has reached a given number of times.

8. A stereoscopic image projection device according to claim 1, wherein the image projecting means carries out image display with a number of primary colors which is greater than a usual number of three primary colors, by the image projecting means utilizing plural devices which emit lights of primary colors having different wavelength bands, in order to display an image for one eye.

9. A correction amount computing device of a stereoscopic image projection device having:

a plurality of image projecting means which, on the basis of image signals for one eye and another eye, project images for the one eye and the other eye which have parallax;

image display means for displaying the images projected from the plurality of image projecting means;

viewing means for dividing and enabling viewing, at the one eye and at the other eye respectively, two-dimensional images for the one eye and the other eye which are displayed on the image display means; and

correction processing means for carrying out correction processing on at least one of image signals for the one eye and the other eye, on the basis of an amount of correction of image distortion determined on the basis of the image displayed on the image display means,

wherein the correction amount computing device of a stereoscopic image projection device comprises:

pick-up means for correction for picking-up an image projected on the image display means, for correction; and

correction computing means for computing a correction amount for correcting image distortion from picked-up image data, and outputting the correction amount to the correction processing means.

10. A correction amount computing device of a stereoscopic image projection device according to claim 9, further comprising:

a plurality of polarizing means through which passes only light of a given polarization direction for each eye from image lights for the one eye and the other eye which are projected from the plurality of image projecting means,

wherein, by using polarized light, the viewing means divides and enables viewing, at the one eye and at the other eye respectively, two-dimensional images for the one eye and the other eye which are displayed on the image display means.

11. A correction amount computing device of a stereoscopic image projection device according to claim 9, further comprising:

a plurality of shutter means for repeatedly carrying out, at high speed, operations of allowing passage of and blocking passage of image lights for the one eye and the other eye which are projected from the plurality of image projecting means;

shutter controlling means for controlling operations of the plurality of shutter means and the pick-up means for correction; and

correction start signal generating means for generating a correction start signal, and for making the shutter controlling means and the pick-up means for correction start operations for correction.

12. A correction amount computing device of a stereoscopic image projection device according to claim 9, wherein the image projecting means carries out image display with a number of primary colors which is greater than a usual number of three primary colors, by the image projecting means utilizing plural devices which emit lights of primary colors having different wavelength bands, in order to display an image for one eye.